

# ARKANSAS FORESTS, 1600–1988

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**Abstract**—A general history of Arkansas forests from 1600-1988 reveals many changes in the resource. From pre-European settlement to the late 1800's, the abundant timber was used primarily for shelter and fuel for heating and cooking; occasionally, land was cleared for farming. The 'Big Cut' era occurred in Arkansas from 1890 to 1920. As the resource dwindled in the South, some eyes turned to the Pacific Northwest for a new source of timber, whereas others stayed in the South and applied forest management concepts to the remaining resource. From 1920 to 1950, 'peckerwood' sawmills and the newly emerging pulp and paper industry made use of the smaller trees left behind after the 'high-grading' that occurred during the 'Big Cut' era and the new growth emerging on cut-over lands. The creation of the Arkansas Forestry Commission in 1931 helped control the fires that yearly destroyed millions of acres of timberland in the State. Lumber production was suppressed during the Depression, but with the advent of World War II, production began to increase again. During the 1950's, sawmills became fewer in number but larger in size, whereas pulp mills increased in number and size. Forest area decreased during the 1960's and 1970's but began increasing again in the 1980's.

## EARLY HISTORY OF ARKANSAS

The early inhabitants of Arkansas lived in an area that was about 95 percent forested (Ashmore 1978). The three main regions of this area, the Ozark-Ouachita, Delta, and Pineywoods, teemed with all kinds of wildlife from buffalo, black bear, deer, and cougar to a wide variety of birds and fish. The area contained vast virgin stands of pine and hardwood (Ashmore 1978). In 1541, the Spanish explorer Hernando de Soto first touched ground in Arkansas near the present Mississippi River town of Helena. More than a century later, European explorers reentered the area when Jacques Marquette and Louis Jolliet voyaged through part of Arkansas in 1673. In 1682, La Salle claimed Louisiana for France. This claim included the region that was to become Arkansas. The first settlement began in 1686 at Arkansas Post, a few miles inland from the Mississippi River. These early settlers used the abundant timber primarily for shelter and fuel for heating and cooking. Occasionally the land was cleared for farming.

The Louisiana Purchase in 1803 included the area that became the territory of Arkansas in 1819 and the State of Arkansas in 1836 (Ashmore 1978, Fletcher 1947). Although the initial era of commercial timber cutting began in the 1890's, some pioneers began cutting timber commercially as early as 1826. Arkansas' first steam-powered sawmill is believed to have been operating in Helena at about this time (Anon. 1936, Davis 1983). In 1883, Arkansas and Missouri lumber manufacturers organized the first trade association in the South (Davis 1983, USDA Forest Service 1988). In some regions, such as the Ozark-Ouachita mountain regions, white and red oaks were cut for barrel staves and wagon stock (Davis 1983).

## THE INITIAL ERA OF TIMBER CUTTING

When timber supplies in the Northern United States began to dwindle, eyes turned toward the South for a new source of timber to meet the demands of the growing country. The

initial era of timber cutting in Arkansas began in the 1890's and lasted up to 1920 (Roberts and others 1942, Widner 1968). As local timber supplies declined, land speculators and lumber company "millmen" came to Arkansas from the North looking for cheap timberland (Widner 1968). The 1876 revision of the Southern Homestead Law of 1866 aided "land speculators" in their purchase of millions of timberland acres in Arkansas (Clark 1984). Large tracts of timberland came under single ownership by sawmill operators or timber companies (Davis 1983, Widner 1968), and the push to harvest the great timber resource of Arkansas began. By 1909, there were two dozen big sawmills, such as Dierks, Crossett, Fordyce, Bradley, Southern, and Union Mills, in Arkansas (Davis 1983, Widner 1968). During these years of peak production, forested area was reduced from 32 million to 22 million ac (Davis 1983, Roberts and others 1942). The amount of lumber produced ranged from 79 million board feet in 1869 to 2 billion board feet in 1909 when Arkansas ranked fifth in the Nation in lumber production (Arkansas Forest Industries Committee 1962, Davis 1983, Roberts and others 1942, Widner 1968).

Lack of an adequate railroad system to transport timber to the sawmills hindered initial efforts to harvest much of the State's timber. In some areas, thanks to Arkansas' large network of navigable streams and rivers, logs were floated downstream to sawmills or railroad depots (Rafferty 1980). As the demand for timber increased, timber companies often built their own railroads. Whole towns sprang up to serve communities of loggers, mill workers, and railroad workers. As timber in an area was depleted, these company towns often relocated, exemplifying the "cut-out and get-out" philosophy of the time. In some cases, buildings were moved on railroad cars down the track to the next logging site where they were unloaded to house a new community. Many of these towns, such as Rosboro, are no longer visible on a map, but, in their heyday, they were home to several thousand families who made their living working for the lumber companies (Smith 1986).

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During this era, the first national forest in the South was established in Arkansas. The Arkansas National Forest was established in 1907 in west-central Arkansas; it was renamed the Ouachita National Forest in 1926. Areas in southeast Oklahoma were added later under the administration of President Theodore Roosevelt. In 1908, the Ozark National Forest was created in northwest Arkansas. Federally unappropriated public lands made up a vast portion of these forests, but some tax-delinquent lands were added as well as forest lands cut over by lumber companies and later purchased by the Federal Government. A third national forest, the St. Francis, was created in 1960 along Crowley's Ridge in east Arkansas. Today, these forests cover nearly 2.7 million ac (Bass 1981, Roberts and others 1942, Smith 1986).

This initial period of exploitation severely depleted Arkansas forest resources. Timber was viewed as a never-ending resource. As timber became scarcer in the South, many companies' sights turned to the Pacific Northwest (Clark 1984, Reynolds 1980, Smith 1986). Whereas some lumber companies moved West in search of virgin timber, others stayed and applied forest management concepts to the remaining resources. Following the examples set by Henry Hardtner's experiments in reforestation, selective cutting, and timber management, Arkansas lumbermen began to use new techniques to ensure a continuous yield of timber for their mills (Clark 1984, Davis 1983, USDA Forest Service 1988).

In the 1920's, "peckerwood" sawmills began operation in Arkansas. These small, portable sawmills manufactured the bulk of the lumber in the South during the 1920's and 1930's. In many areas, including the Ozark region of Arkansas, farming supplemented a sawmiller's income and vice versa (Davis 1983). In the late 1920's, the construction of a kraft-specialty mill introduced the pulp and paper industry to Arkansas (Arkansas Forest Industries Committee 1962). These two new forest industries (peckerwood sawmills and the pulp industry) used smaller trees often left behind after the "high-grading" timber cutting (cutting the best and leaving the rest). They also took advantage of the new growth emerging on the cut-over lands (Bass 1981, Davis 1983, Troutman and others 1981).

## **DEVELOPMENT OF ORGANIZED FORESTRY**

In 1928, the Arkansas Forest Protection Association was created. This organization worked to establish a State forestry commission to aid in controlling fires that yearly destroyed millions of acres of Arkansas timberland. After some political opposition and a year of rallying among the citizens, the Arkansas State Legislature authorized the creation of the Arkansas Forestry Commission in 1931. Since no funds were allocated, it was a forestry commission in name only. Under the administration of President Franklin D. Roosevelt, the Federal Government offered to set up Civilian Conservation Corps (CCC) camps in Arkansas if the State would provide the funds for the forestry commission. In 1933, the legislature again denied the funds. It took the efforts of Governor J.M. Futrell and his public appeal for donations before some \$8,000 was collected to fund the commission. On May 23, 1933, Charles Gillett was

appointed the first State Forester (Davis 1983, Roberts and others 1942, Widner 1968).

The commission went to work to prevent or decrease the forest fires that plagued the State. Humans caused most of these fires. Burning timberland to clear out snakes and ticks and to clear land for agricultural or homesteading purposes was common practice, and fire could escape from railroad right-of-ways and logging operations. Arsonists also caused many fires. Through the efforts of the CCC, the Arkansas Forestry Commission, the Forest Service, and forest industry, fire towers, roads, and telephone lines were constructed across Arkansas to enable quick action in the event of a fire. Tree nurseries were also established to provide seedlings for planting cut-over, burned-over, and abandoned acreages on private and public land. The commission and the Forest Service worked to educate Arkansans about fire control through forest festivals or special showings of current movies, often preceded by words from a visiting forester (Bass 1981, Davis 1983, Roberts and others 1942, Smith 1986, Widner 1968).

Through the 1930's and 1940's, forest management and conservation efforts continued. The Cole-Crutchfield Forest Fire Law, passed in 1935, illustrated the importance of these efforts to the forests and economy of Arkansas. This law placed restrictions on burning and assessed fines for violations. It prohibited people from setting fires on land not their own and required them to notify fire control personnel in their area before burning. During this time, large forest landowners voluntarily donated 2 cents per acre per year to the Arkansas Forestry Commission for fire control efforts (Troutman and others 1981, Widner 1968). The severance tax law was enacted in Arkansas in 1923. This measure, still in effect, taxes all natural resources removed or severed from their natural state for commercial purposes. These resources include everything from minerals, precious stones, oil, gas, and gravel to timber, turpentine, and all other forest products. In the beginning, the severance tax revenue went to the counties for roads and schools, but, in 1937, the State Legislature reassigned the funds to the forestry commission (Roberts and others 1942, Widner 1968).

In 1933, the Crossett Experimental Forest was created in south-central Arkansas on land leased from the Crossett Lumber Company. On this holding, the Forest Service, Southern Forest Experiment Station (SFES), set out to study management of second-growth timber stands (Reynolds 1980, USDA Forest Service 1988). Today, research is conducted on multiresource management. The SFES Forest Survey began in Arkansas in 1934. The aim was to provide information on timber inventory, growth, removals, and mortality of the timber resource in Arkansas (USDA Forest Service 1937). The initial survey did not inventory the Ozark region. The first survey to include the entire State was completed between 1947 and 1951 (USDA Forest Service 1953). This research, along with contributions by Federal, State, and private groups, provided insights into the use and availability of the second-growth timber, sustained yield management, and new, improved technologies for cutting, hauling, and processing timber (USDA Forest Service 1988).

During the Depression, lumber production was suppressed, which in turn gave the second-growth forest a chance to grow (Clark 1984). Reversions of abandoned farmland to timberland and tree planting by the CCC bolstered the forest resource (Clark 1984, Widner 1968). With the advent of World War II, lumber production began to increase again, but with new production techniques, new uses for wood, and new forest management ideals, the future of Arkansas timber was more secure.

In 1945, the Arkansas Forestry Commission was consolidated into the Resources and Development Commission. The resulting combination was called the Division of Forestry, and the severance tax revenue was moved to the general fund. In the fall of 1952, more than 150,000 ac of timberland in Arkansas burned. This event helped lead to the re-establishment of the Arkansas Forestry Commission in 1953. The severance tax was increased and reassigned to the commission for forest fire control, management, education, insect and disease control, and seedling growth and distribution. This increase in funding allowed the commission to expand its efforts, including establishment of another nursery and the Poison Springs State Forest in 1957. This State forest was established in south Arkansas on land purchased from the Federal Government (Troutman and others 1981, Widner 1968). During the 1940's, a 2-year program of study in forestry was established at Arkansas A&M University (now the University of Arkansas at Monticello). In 1950, the program was expanded to 4 years and offered a Bachelor of Science degree in forestry. It remains the only such program in the State of Arkansas (Troutman and others 1981).

## DEVELOPMENT OF MODERN FOREST INDUSTRY

During the 1950's, expansion of the pulp and paper industry fueled the forest industry sector and gave the second-growth forest a marketplace. New pulp mills were created, and existing ones were upgraded. With the introduction of debarkers and chippers came a shift in sawmills. Peckerwood sawmills began to disappear, and the few large sawmills grew even larger. Slabs and edgings from the cuttings in these mills were chipped for use in the pulp mills (Arkansas Forest Industries Committee 1962, Sternitzke 1960). The first commercial facilities in the South for converting sawmill waste into chips for pulp mills were in Bradley County in southeast Arkansas (Arkansas Forest Industries Committee 1962). Forest land decreased in the Delta region of Arkansas as farming the fertile soil in that area became more profitable. Small subsistence farms and pastures were abandoned by the population for a more urban existence, thus increasing the forest land in the upland regions. Forested area increased overall during the 1950's (Sternitzke 1960).

The 1960's and 1970's saw a decrease in forest area in Arkansas. Land clearing in the Delta for crops, in other regions for pastureland, and across the State for urban expansion left about 50 percent of the State forested by 1978 (Van Hees 1980, Van Sickle 1970). Even with this decrease in forest area, growing-stock volumes were slightly higher; but, most of this volume was in smaller

trees. More efficient use and management of the forest resource ensured a constant supply of timber. Sawmills continued to become larger in size, but fewer in number. Pulpwood production boomed to 179.1 million ft<sup>3</sup> in 1977, partly because of technological changes that provided for the use of hardwood for pulp (Van Hees 1980). Although two-thirds of the timber harvested was softwood (mostly pine), Arkansas remained a major producer of hardwood cooperage and handle stock (Van Sickle 1970).

Federal and State assistance programs have helped to convert millions of acres of idle land into productive timberland. Programs such as the Agriculture Conservation Program (ACP), the Conservation Reserve Program (CRP), and the Forestry Incentives Program (FIP) have paid funds to private landowners to help defray the cost of planting trees and managing the timber on their land (Troutman and others 1981, Troutman and Porterfield 1974, USDA Forest Service 1988). Under new programs, such as the CRP, many acres of land cleared in the 1960's and 1970's in the Arkansas Delta are being reforested.

The forest industry has often been the largest manufacturing industry in the State, thus providing significant employment opportunities and economic benefits to the overall economy of Arkansas (Arkansas Forest Industries Committee 1962, Troutman and others 1981, Tucker 1985). Arkansas forests also provide many recreational and aesthetic benefits to its inhabitants and visitors (Troutman and Porterfield 1974).

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